IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Currently amended): A method of monitoring the location of a mining vehicle in a mine, the method comprising:

driving at least one mining vehicle [[(1)]] during one work cycle at least in a first work area [[(18a)]] and in a second work area [[(18b)]] of the mine;

determining data on the location of the mining vehicle [[(1)]] in the mine [[(17)]];

transferring said location data to a mine control system [[(11)]];

employing, in location data transfer, a data communication connection communicating with the mine control system; ~~(11); and~~

employing the obtained location data in the mine control system [[(11)]] for monitoring the operation of the mining vehicle [[(1)]],

~~characterized by~~

determining the location of the mining vehicle [[(1)]] substantially continuously on the basis of a dead reckoning, wherein the distance travelled is calculated and the travel direction is determined;

identifying, when operating in the first work area [[(18a)]], at least one identifier [[(29)]] whose location is accurately known;

determining the location data of the mining vehicle [[(1)]] on the basis of the identification data;

and updating the location data determined in the dead reckoning on the basis of the location data of the identifier [[(29)]] when driving in the first work area [[(18a)]].

Claim 2 (Currently amended): A method as claimed in claim 1, comprising:

~~characterized by~~

arranging at least one readable identifier [[(29)]] in a predetermined location in the first work area [[(18a)]],

assigning the location data of the identifier [[(29)]] in advance to a control unit [[(8)]] in the mining vehicle,

reading the identifier [[(29)]] with at least one reading device [[(19)]] in the mining vehicle,

and determining the location of the mining vehicle in the first work area [[(18a)]] on the basis of the location data of the identifier [[(29)]], and updating the location data obtained on the basis of the dead reckoning.

Claim 3 (Currently amended): A method as claimed in claim 1, comprising:

arranging at least one readable identifier in a predetermined location in the first work area,

assigning the location data of the identifier of the identifier in advance to a control unit in the mining vehicle,

reading the identifier with at least one reading device in the mining vehicle.

determining the location of the mining vehicle in the first work areas on the basis of the location data of the identifier, and updating the location data obtained on the basis of the dead reckoning.

and ~~claim 2, characterized by~~ reading a visual identifier ~~(29a, 29b)~~ arranged in the first work area [[(18a)]] for determining the location of the mining vehicle [[(1)]].

Claim 4 (Currently amended): A method as claimed in claim 1, comprising:

arranging at least one readable identifier in a predetermined location in the first work area,

assigning the location data of the identifier in advance to a control unit in the mining vehicle

reading the identifier with at least one reading device in the mining vehicle,

determining the location of the mining vehicle in the first work area on the basis of the location data of the identifier, and updating the location data obtained on the basis of the dead reckoning ~~2, characterized by~~

arranging at least one identifier [[(29)]] comprising a receiver in the first work area [[(18a)]],

transmitting a signal for reading the identifier [[(29)]] from a transmitter [[(9)]] in the mining vehicle when driving in the first work area [[(18a)]],

and determining the location of the identifier [[(29)]] read as the location of the mining vehicle [[(1)]].

Claim 5 (Currently amended): A method as claimed in claim 1, ~~characterized by~~ comprising:

arranging at least one transmitter [[(42)]] that transmits a signal in a predetermined location in the first work area [[(18a)]],

receiving the signal by means of the data transfer unit [[(9)]] in the mining vehicle [[(1)]] when in the coverage area of the transmitter [[(42)]],

and determining the location of the mining vehicle [[(1)]] on the basis of the signal and

updating the location data obtained on the basis of the dead reckoning.

Claim 6 (Currently amended): A method as claimed in claim 1, ~~characterized by~~ comprising:

creating a wireless network [[(10)]] comprising a plurality of base stations ~~(13a to 13c)~~ placed in predetermined locations in the first work area [[(18a)]],

and determining the location of the mining vehicle in the first work area [[(18a)]] by positioning carried out in the wireless network [[(10)]] and updating the location data obtained on the basis of the dead reckoning.

Claim 7 (Currently amended): A method as claimed in claim 1, comprising: ~~any one of the preceding claims, characterized by~~

driving the mining vehicle [[(1)]], suitable for transporting, in accordance with a work cycle,

driving the mining vehicle from an unloading area to a loading area,

loading cargo into the mining vehicle in the loading area,

driving the loaded mining vehicle from the loading area to the unloading area,

unloading the cargo of the mining vehicle in the unloading area,

determining the location of the mining vehicle in the loading area only on the basis of the dead reckoning,

and determining the location of the mining vehicle in the unloading area both on the basis of the dead reckoning and by reading at least one identifier [[(29)]] arranged in the unloading area.

Claim 8 (Currently amended): A system for monitoring the location of a mining vehicle in a mine, the system comprising:

a first work area [[(18a)]] and a second work area [[(18b)]] in the mine [[(17)]], in which areas the mining vehicle [[(1)]] is arranged to drive during one work cycle;

at least one measuring device [[(30)]] for determining the distance travelled by the mining vehicle, and further at least one measuring device [[(31)]] for determining the direction of the mining vehicle;

a mine control system [[(11)]];

at least one control unit [[(8)]] arranged in the mining vehicle;

at least one data transfer connection for data transfer between the control unit [[(8)]] of the mining vehicle and the mine control system [[(11)]];

and in which system:

location data of the mining vehicle [[(1)]] are arranged to be transferred via the data transfer connection from the mining vehicle ~~(1, 1a, 1b)~~ to the mine control system [[(11)]], ~~characterized in that~~

the location of the mining vehicle [[(1)]] is arranged to be determined substantially continuously on the basis of a dead reckoning by taking into account the distance travelled and the direction;

[[that]] at least one identifier [[(29)]] whose location is known to the control unit [[(8)]] is arranged in the first work area [[(18a)]];

[[that]] the mining vehicle [[(1)]] is arranged to identify the identifier [[(29)]] when driving in the vicinity of the identifier [[(29)]];

[[that]] the control unit [[(8)]] is arranged to determine location data on the basis of the identification data;

and [[that]] the control unit [[(8)]] is arranged to update the location determined in the dead reckoning on the basis of the location data of the identifier [[(29)]].

Claim 9 (Currently amended): A system as claimed in claim 8, wherein ~~characterized in~~

[[that]] at least one readable identifier [[(29)]] whose exact location is known to the mine control system [[(11)]] is arranged in the first work area [[(18a)]];

[[that]] the mining vehicle [[(1)]] comprises means for reading the identifier [[(29)]].

Claim 10 (Currently amended): A system as claimed in claim 8 ~~or 9,~~ ~~characterized in that~~ wherein

the first work area [[(18a)]] comprises at least one predetermined critical location,

and [[that]] at least one identifier [[(29)]] is arranged in the immediate vicinity of said critical location.